

WHAT IS CLAIMED IS:

1. A disk drive comprising:

a magnetic head having a write head for writing  
data on a data recording medium by a perpendicular  
5 magnetic recording method and a read head for reading  
data from the data recording medium; and

a disk recording medium provided with a plurality  
of tracks as data regions for storing data written by  
the write head and a non-recording region provided  
10 between tracks kept in an AC magnetized state or a  
random magnetized state.

2. A disk drive according to claim 1, wherein  
the disk recording medium is a double-layered  
recording medium having a recording magnetic layer for  
15 storing data and a soft magnetic layer interposed  
between the recording magnetic layer and a substrate.

3. A disk drive according to claim 1, wherein  
the non-recording region of the disk recording medium  
is kept in a state where an AC magnetized pattern is  
20 recorded at a frequency equal to or higher than a  
maximum frequency of a signal magnetic field recorded  
in the tracks.

4. A disk drive according to claim 1, wherein  
the non-recording region of the disk recording medium  
25 is kept in an AC demagnetized state.

5. A disk drive according to claim 1, wherein  
the read head has a GMR (giant magnetoresistive)

element and reads data recorded by the perpendicular magnetic recording method while it is close to a surface of the disk recording medium.

5 6. A process for manufacturing a disk drive of a perpendicular magnetic recording type, comprising:

a recording step for recording an AC magnetized pattern at a high frequency or a random magnetized pattern on an overall surface of the disk recording medium; and

10 a track formatting step for forming a plurality of tracks on the overall surface of the disk recording medium with an area between the tracks left as a non-recording region.

15 7. A process according to claim 6, further comprising a servo write step for recording a servo signal in a predetermined servo area of the overall surface of the disk recording medium, wherein the recording step for recording an AC magnetized pattern at a high frequency or a random magnetized pattern is  
20 performed with respect to the overall surface of the disk recording medium except for the predetermined servo area.

25 8. A process for manufacturing a disk recording medium for use in a magnetic disk drive of a perpendicular magnetic recording type, comprising:

a step of AC demagnetizing an overall surface of the disk recording medium; and

[illegible]